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ACAST 5 GHz Wireless Channel Characterization for Airport Surface/Terminal Areas 24 August 2004

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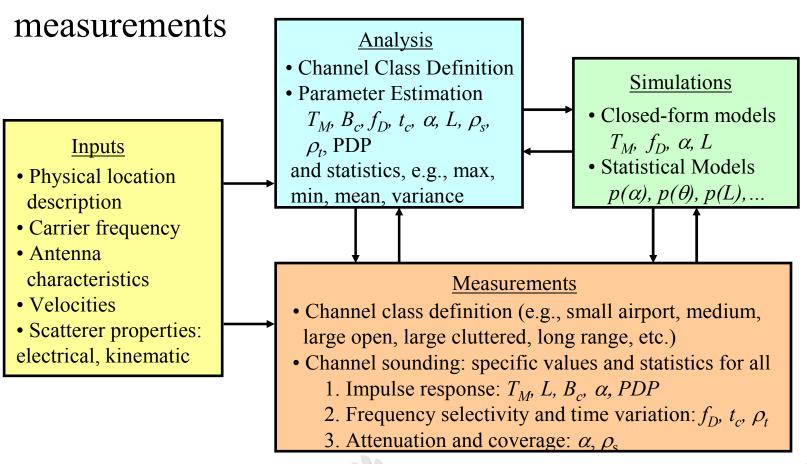
Motivation for Characterization

- Enables determination of required link parameters
 - − Transmit powers⇒ranges
 - Antenna characteristics (gains, beamwidths)
 - Siting guidelines
- Enables determination of channel impulse response characteristics (delay & Doppler spreads, statistics, etc.). Essential for PHY/MAC design, in terms of, e.g.,
 - Signal bandwidths & data rates
 - Modulation(s), forward error correction coding schemes
 - Adaptation algorithms for allocating resources in the time, frequency, and spatial domains
 - Duplexing and multiplexing methods
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Plan for Channel Characterization

• Combination of analysis, simulation/modeling, and



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